

STAFF RECOMMENDATION

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NCPC File No. 6423/6636



SMITHSONIAN INSTITUTION
PERIMETER SECURITY AT THE NATIONAL MUSEUM OF NATURAL HISTORY
The National Mall, Constitution Avenue between 9th and 12th Streets, NW

Submitted by the Smithsonian Institution

January 26, 2006

Abstract

The Smithsonian Institution has submitted final site and building plans for perimeter security around the National Museum of Natural History, located on the National Mall and on Constitution Avenue between 9th and 12th Streets, NW. The Commission reviewed a proposed concept for Mall-wide building perimeter security, including the National Museum of Natural History, at its February 5, 2004 meeting and preliminary site and building plans at its October 2, 2004 meeting. Based on the Commission's previous direction to the Smithsonian and subsequent consultation at the staff level, the Smithsonian has developed final site and building plans for the National Museum of Natural History.

The plans include two options for the treatment of the south museum entrance, which faces Madison Drive and the National Mall. Staff recommends approval with the "Base Option" design but recommends that the "Option 1" design be implemented if funds become available.

Commission Action Requested by Applicant

Approval of final site and building plans pursuant to 40 U.S.C. § 8722(b)(1) and (d).

Executive Director's Recommendation

The Commission:

Approves the final site and building plans for perimeter security around the National Museum of Natural History, with the "Base Option" treatment for the Madison Drive entrance, as shown on NCPC Map File No. 1.41(38.40) 41956.

Recommends that the "Option 1" treatment for the Madison Drive entrance be implemented, as also shown on NCPC Map File No. 1.41(38.40) 41956.

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PROJECT SUMMARY

Site Description

The National Museum of Natural History is located on the north side of the National Mall, with its south entrance facing Madison Drive, NW and its north entrance facing Constitution Avenue, NW. The monumental Beaux Arts-style building occupies the site between 9th and 12th Streets, NW. The National Gallery of Art's Sculpture Garden is to the east and the Smithsonian's National Museum of American History is to the west.

The museum building has a sunken parking lot and loading dock on its south, east, and west sides, beyond a planting bed inside the sidewalk. Driveways to the parking lot enter the site from Constitution Avenue. The lawn on the museum's north façade facing Constitution Avenue includes several significant trees and a low granite curb along the inside of the sidewalk. On the east and west, 9th and 12th Streets both descend under the Mall. There are significant grade differences across the site.

Background

The Smithsonian Institution (SI) has consulted with NCPC staff and the Commission, other review agencies and their staffs, and with interested groups on the Mall-wide security design plan since 2003. The Commission has reviewed both a concept submission (February 2004) as well as a preliminary site and building plan submission (October 2004) for Mall-wide security design for its museums. SI plans to complete the designs for each museum as funds and schedules allow. The context and issues for each museum's final security design has been established through the prior reviews. The Commission has already approved final security design plans for the National Museum of the American Indian and for the National Air and Space Museum. The current submission is solely for the National Museum of Natural History (NMNH).

Prior Commission Action

At its October 2004 meeting, the Commission reviewed an earlier, less-developed design for perimeter security at NMNH. The current scheme has been improved in design details in response to the Commission's prior direction. The previous action included the following recommendations for development of the NMNH security design:

- Provide additional openings through the low free-standing walls to the lawn areas adjacent to the north entrance.
- Further develop the north entrance sign panel design to distinguish it in scale and profile from the height of the adjacent low free-standing walls. Replace solid wall sections flanking the sign panel with benches facing Constitution Avenue, NW.
- Relocate the perimeter security line along Madison Drive, NW and 12th Street, NW to incorporate and modify the existing parking retaining walls and plinths.
- Relocate the bollards in front of the south entrance to minimize conflict with pedestrian movement along the sidewalk.

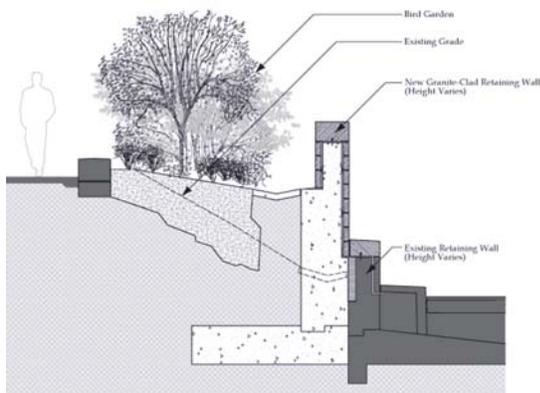
Proposal

The current proposal is a significant design refinement of the preliminary site and building plans.

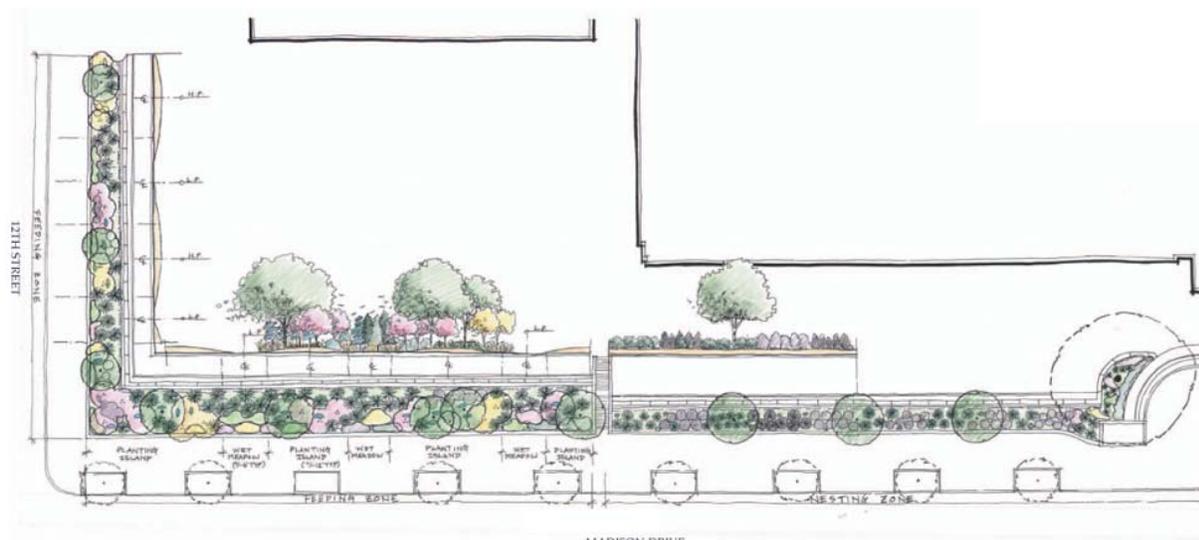


Site Plan showing proposed location and type of security design around the museum and its site.

South façade (Mall): The barrier line has been moved to the rear of the planting bed inside the sidewalk so that a re-graded and well-planted area can be created and so that the barrier will not be readily visible to pedestrians on the sidewalk. A Bird Garden will be incorporated into the new planting bed on the southwest corner--similar to the Butterfly Garden established along 9th Street. A new, higher retaining wall will be inserted directly against the parking lot retaining walls.



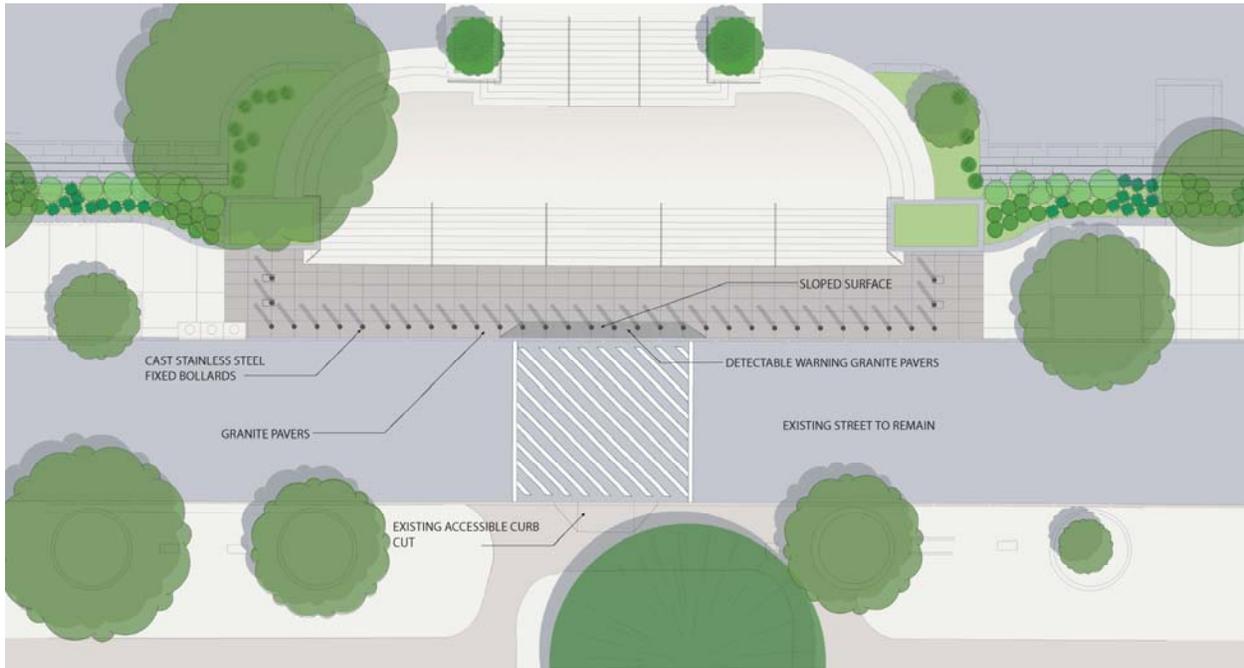
New, extended retaining wall to be constructed adjacent to existing parking lot/loading dock retaining wall. Pedestrian is on sidewalk. Note re-graded planting beds.



Planting scheme for Bird Garden on southwest corner of site (on Madison Drive and 12th Streets). The bed inside the sidewalks will be re-graded and planted with a variety of flowers, plants, and trees.

“Base Option” at entrance: The staff was among the many agencies and organizations that consulted with SI in mock-ups of bollards at various locations in front of the entrance during the development of this scheme. At the museum entrance, bollards will be installed around the stairs at the Madison Drive street curb. A custom cylindrical, cast stainless steel bollard was developed for the site, for both fixed and operable bollards. The bollards will cross the Madison Drive sidewalk and run parallel to the street curb. The sidewalk (of granite pavers, extending the width of the museum entrance and replacing the current concrete sidewalk) will be sloped imperceptibly toward the street in order to reduce the width of the handicapped sidewalk parallel to the curb. The ramp has also been widened to the width of the stairs to provide a more formal and well-integrated sidewalk design and to reduce the potential for the bunching of pedestrians crossing the street. “Detectable warning” granite pavers, of matching stone but with a raised pattern, will edge the curb. The bollard line will run across the sidewalk ramp. While the height of the bollards would be uniform across the line, the bollards crossing the ramp would be longer (lower) by about two inches to accommodate the slope. The design adjustment to both the sidewalk slope and to the length of the sidewalk ramp minimizes the difference in heights of the bollards and the perception of them.

“Option 1” at entrance: Another option, also developed during design consultation, is to raise the level of Madison Drive in front of the museum in order to eliminate the curb. The raised street table, of granite, would extend the width of the museum stairs and replace the striped crosswalk. The bollard line would be installed in the same location as in the Base Option, but the perception would likely be of a more spacious entrance. The bollards would be of a uniform size because the sidewalk ramp would be unnecessary. The detectable warning pavers, however, would still be installed. SI has consulted with the National Park Service in the development of this option, as the Park Service has jurisdiction of Madison Drive. If this option is implemented, SI will assume the maintenance of it.



SOUTH ENTRY
BASE BID

Plan detail at Madison Drive museum entrance – Base Option

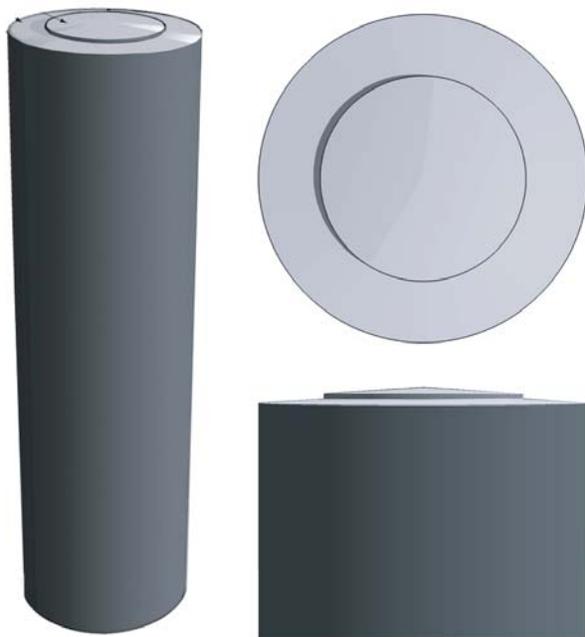


SITE PLAN
BASE BID

Plan detail at Madison Drive museum entrance – Option 1



Section of Madison Drive (Mall) entrance, showing three bollards crossing the sidewalk.



Proposed cast stainless steel bollard (both fixed and retractable)

West façade (12th Street): The barrier line continues on 12th Street with the raised retaining wall between the inside edge of the lawn and the sunken parking lot/loading dock. At the northwest corner (near Constitution Avenue), the barrier line shifts outward to the inner edge of the sidewalk. A free-standing granite wall will be installed near the turn of the corner. This same wall design will continue along the Constitution Avenue sidewalk.

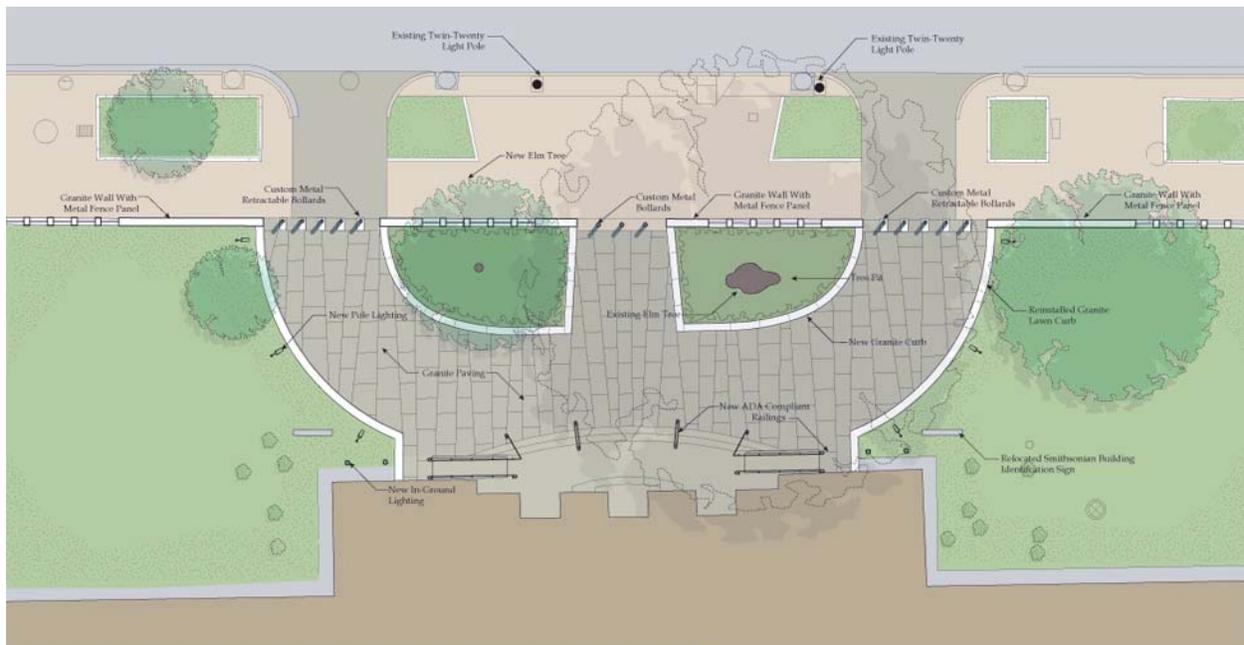
North façade (Constitution Avenue):

A free-standing wall will extend most of the length of the Constitution Avenue side of the museum. The wall consists of sections of open cast-metal fence panels interspersed with dry-laid Milford Pink granite slabs. The slabs are nine inches thick and are laid in four courses. At intervals, the wall opens visually and physically using only the lowest of the four courses, which creates a granite curb that can be used for seating, similar to the existing granite curb, which will be removed. The granite slabs will be cored for the structural bollards at five-foot intervals. The cast-metal fence panels, also designed for structural bollards within granite piers at five-foot intervals, are more open and contemporary than the design seen previously by the Commission.

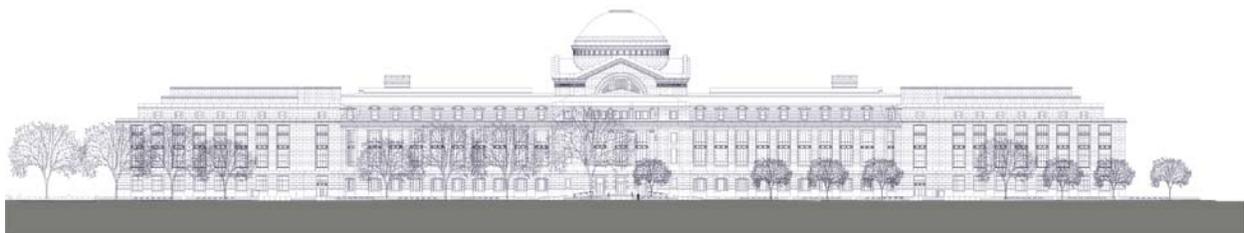
In the preliminary plan, a vertical bollard fence with a neo-classical design was to be installed behind the existing granite sidewalk curb (located at the inner sidewalk edge; not to be confused with the street curb). In the current scheme, the granite curb will be removed and replaced with the new granite wall. Visitors will be able to sit on low parts of the proposed wall or lean against the full-height sections. The design objective is to combine the openness sought by the Commission and others to allow views and access into the lawn and museum setting with wall elements that express both the monumentality and scale of the museum's façade and that provide relief in a long barrier line.

Further research has shown that the granite curb thought to be original to the building is a replacement from the 1960s, when the building was expanded, although early photographs show a curb at the inside sidewalk edge. The preliminary plans preserved the curb and added a vertical fence behind it. Given the fact that the curb is not original to the site, an entirely new wall was designed. The location of the new wall will be the same as that for the granite curb, thus limiting damage to tree roots that would occur with digging a trench behind the existing curb.

Individual bollards are installed at the driveways and across the grass panels and the walkway at the north entrance to the museum. The current entrance driveway will be modified slightly. The significant tree near the entrance will be retained and another will be planted. The stairs have been reconfigured slightly and ADA-compliant railing will be added. The sign wall that the Commission objected to in the previous scheme has been eliminated. The museum identification sign is now placed in the lawn near the building entrance. Two custom-designed, granite-faced guard booths are proposed for the driveways entering from Constitution Avenue; the booths are integrated into the granite free-standing wall.



Detail of plan at Constitution Avenue entrance



The free-standing barrier wall is located inside the sidewalk edge. It contains open fence-wall sections as well as granite slabs. Bollards will be installed across the driveway entrances and at the center entrance, to increase visual and physical access and openness.

East façade (9th Street): With the 9th Street tunnel crossing the National Mall below grade, the east façade does not require the level of physical protection that the other façades do. A Geological Specimen Garden will be created to complement the existing Butterfly Garden. The boulders will be placed at the northeast and southeast corners of the site. Two retractable bollards will be installed across the 9th Street sidewalk near each corner, in order to continue the lines of boulders to the curb. There are no other barriers proposed for the 9th Street façade.

PROJECT ANALYSIS

Staff commends the Smithsonian for a thoughtful and well-designed plan and consultation process for perimeter security at the National Museum of Natural History, a prominent building and site on the north side of the Mall opposite the Castle.

Since the Commission's October 2004 recommendation, SI and its design team have made significant and welcome design improvements in the barrier line around the museum, pursuant to the Commission's recommendation and subsequent consultation during 2005. The raised parking lot retaining wall and a re-graded and landscaped Bird Garden are welcome improvements to a barrier line previously proposed for the inside edge of the Madison Drive facing the National Mall and on 12th Street. The monotonous hedge will be removed and the area re-graded and planted with a variety of plant materials, including trees.

The proposed new free-standing wall along Constitution Avenue is also the result of further study of the site. The elimination of the existing granite curb from the scheme has allowed the design team to simplify and streamline the free-standing wall along a 1000-foot length of Constitution Avenue. Staff supports the removal of the curb for two reasons: it allows for a unified and simplified barrier wall instead of the composite barrier previously proposed (which consisted of the coping stone curb adjacent to and affixed to a vertical barrier fence); and it allows the trench for the barrier fence to be placed as far away from the tree roots as possible.

The revised design for the north façade barrier is more contemporary than previously shown. The proposed custom bollard for both north and south entrances is a sleek cylinder of stainless steel that will serve as both the fixed and the retractable bollards--rough, dark grey cast stainless steel for the body and polished stainless steel for the top. The rhythm of the wall elements has been studied in relation to the building façade and to the landscape. The fence wall is open for views of the lawn. Instead of the benches recommended by the Commission, the fence wall contains lower curb sections similar to the curb that is currently used as seating. The staff finds the simplified, contemporary custom design to be appropriate for security design at this Beaux Arts-style building.

The Commission previously commented on the location of the bollards at the south entrance, recommending the relocation of the bollard line away from the curb so as to "minimize conflicts with pedestrian movement along the sidewalk." After studying various locations at the site with mock-ups, the many participants from review agencies and interested groups found that the best solution was to place the bollards near the curb, rather than in the middle of the sidewalk or close to the base of the stairs. The SI believes that keeping the bollards away from the base of the museum stairs is a safer option for museum visitors using the stairs, and that it also improves the appearance of the stairs as a significant element of the building's façade, as seen from the Mall.

The staff recommends that the Commission approve both the Base Option and Option 1 for the sidewalk configuration. Staff prefers Option 1 (which will require further funds for construction and for subsequent maintenance) because it provides a more spacious appearance to the sidewalk and eliminates the need for a sidewalk ramp and painted stripes in the street in front of the museum. SI has consulted with the National Park Service (which concurs with Option 1), since that option would be constructed on land in the current maintenance jurisdiction of the National Park Service.

CONFORMANCE

Comprehensive Plan for the National Capital

Applicable policies include:

Express the dignity befitting the image of the federal government in the national capital. Federal development should adhere to the high aesthetic standards already established by the planning and design legacy of the nation's capital. This legacy encompasses both the old and the new – the capital's rich architectural heritage, continually augmented by the design contributions of each generation. (Preservation and Historic Features, National Capital Image, #1)

Protect the settings of historic properties, including views to and from the sites where significant, as integral parts of the historic character of the property. (Preservation and Historic Features, Stewardship of Historic Properties, #6)

National Environmental Policy Act

In compliance with the requirements of Commission project submission procedures and the Commission's environmental policies, at the preliminary site and building plan stage of this project NCPC staff reviewed the Smithsonian Institution's Environmental Assessment for planning and construction of perimeter security improvements at Smithsonian Museums on the mall ("mall security EA") and, using that information, on July 13, 2004 made a Finding of No Significant Impact for preliminary site and building for perimeter security for the Museum of Natural History. In considering the final site and building plans for perimeter security around the National Museum of American History, the staff has again reviewed the Mall security EA, and finds that, even taking into account the changes in design between the preliminary and final proposals, the EA sets forth an effective analysis of the potential environmental impacts of the current proposed action, and sufficient alternatives, and continues to be current. Moreover, on review, the July 13, 2004 FONSI applies to the final site and building plans as well, and is confirmed. The submitted final site and building plans remain consistent with the analysis of environmental effects in the EA.

National Historic Preservation Act

The Smithsonian has executed a Memorandum of Agreement (MOA) for this undertaking, which was also signed by the DC State Historic Preservation Officer and the Advisory Council on Historic Preservation. The MOA stipulates that the SI hold a final consultation meeting during a 30—day review period. The consultation meeting is scheduled for January 23, 2006. Many interested organizations have participated in consultation: The Society of Architectural Historians, the Committee of One Hundred on the Federal City, the D.C. Preservation League, the National Trust for Historic Preservation, and the National Coalition to Save Our Mall. In particular, the National Park Service also participated, since they have jurisdiction of the Mall and Mall roads adjacent to the museum.

The MOA addresses the final site and building plans (with the Base Option) and also allows for the implementation of Option 1, in which case the MOA would be modified with an amendment and include the National Park Service as a signatory.

CONSULTATION

Coordinating Committee

The Coordinating Committee reviewed this item at its meeting on January 14, 2004 (prior to concept review by the Commission) and forwarded the proposal to the Commission with the statement that the project has been coordinated with all agencies participating. The participating agencies were NCPC, the District of Columbia's Office of Planning and Department of Housing and Community Development, the General Services Administration, and the Washington Metropolitan Area Transit Authority.

Commission of Fine Arts

The Commission approved the plans, with the Option 1 entrance scheme, at its January 19, 2006 meeting.